



**SUPPLEMENTARY FIG. S4. Inhibition of H<sub>2</sub>O<sub>2</sub> transport is not due to internalization of HaloAQP8.** (A) HeLa cells expressing HaloAQP8 wt were decorated with HaloTag<sup>®</sup> TMR Direct Ligand (in *red*), cultured at 42°C and 0.5% CO<sub>2</sub>, and recorded by time-lapse TIRF microscopy focusing on the first 90 nm from the basal membrane. The frames represent snaps at the beginning of the experiment or after 2 h of culture. (B). HeLa cells transiently expressing HaloAQP8 myc-out were stained with fluorescent anti-myc before (*red*) or after heat stress (*blue*) and analyzed by FACS. Data are represented by overlaying the 647 nm signals in control or stress conditions. Cells expressing surface AQP8 are labeled as Myc<sup>+</sup> cells. TIRF, total internal reflection.